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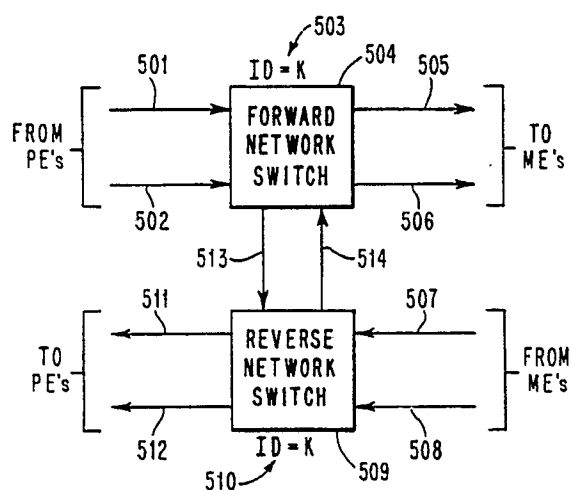
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(54) **A method for detecting and avoiding erroneous decombining in combining networks for parallel computing systems.**

(57) A method to detect and avoid erroneous message decombining in the switching nodes of message combining multistage interconnection networks used to connect the multiple processors to the multiple memory modules of the shared memories used in parallel computing systems. The method assigns a unique ID to each switch and tags each combined message with it. This ID is also tagged to the reply messages. During decombining the message's ID is matched with the switch's ID, if they do not match the message is not decombined. According to a further feature of the invention, it is possible to provide sufficient information in the ID field to allow a routing error to be detected.

FIG. 5



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	Proceeding of the 1986 International Conference on Parallel Processing August 1986, New-York, USA pages 35 - 41; G. Lee: "The effectiveness of combining in shared memory parallel computers in the presence of 'hot spots'" * the whole document *	1-11	G06F15/16 H04L12/56
A,D	IEEE TRANSACTIONS ON COMPUTERS. vol. C.32, no. 2, February 1983, NEW YORK US pages 175 - 183; A. Gottlieb: "The NYU Ultracomputer Designing an MIMD Shared Memory Parallel Computer" * pages 175 - 183, column LEFT, line 31 * * figures 1-4 *	1-11	
A,D	INTERNATIONAL SYMPOSIUM ON VLSI TECHNOLOGY (SYSTEMS AND APPLICATIONS) May 1987, pages 349 - 353; Y. Hsu: "Design of a Combining Network for the RP3 project" * the whole document *	1-11	TECHNICAL FIELDS SEARCHED (Int. Cl.5) G06F H04L
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 26 OCTOBER 1990	Examiner SOLER J.M.B.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	